

Remarks

This amendment is responsive to the Office Action mailed July 2, 2003 setting a three month shortened statutory period for response expiring on October 2, 2003. Claims 1, 6-9, 14-17, and 22 stand rejected. Claims 2-5, 10-13, 18-21, 23 and 24 are objected to as containing allowable subject matter but depending from rejected base claims. Claim 2 is amended as set forth above, as suggested by the examiner. Claims 1-24 are now believed to be allowable for the following reasons.

Allowable Subject Matter

The examiner correctly acknowledges in the Office Action that the prior art does not teach the features and limitations set forth in Applicant's claims 2-5, 10-13, 18-21 and 23-24. However, as explained below, Applicant's base claims 1, 9, and 17 are also believed to patentably distinguish over the prior art.

Rejection under 35 USC 102(e)

Claims 1, 6-9, 14-17 and 22 stand rejected under 35 USC 102(e) as anticipated by Hamlin. As a preliminary matter, it is noted that Hamlin is directed to a method of organizing data storage on a magnetic disc. Hamlin is not directed to allocation of buffer to speed match with a host data transfer rate as in Applicant's invention. In fact, Hamlin does not even suggest such a feature.

Applicant's claim 1 states:

1. A method for handling multiple data streams in a disc drive, the method comprising steps of:
 - a) allocating a buffer size required by each data stream currently being handled;
 - b) utilizing the buffer sizes found in allocating step a) for corresponding data streams;
 - c) when an additional data stream is to be added, reallocating the buffer size required by each data stream including the additional data stream; and
 - d) when a data stream currently being handled is to be terminated, reallocating the buffer size required by each data stream that will remain after the data stream is terminated.(emphasis added)

Applicant's claims 1, 9, and 17 are directed to a disc drive buffer currently handling multiple data streams between a host and the drive data storage space and allocating to each stream a buffer space needed.

The examiner states that Hamlin "teaches a method and system for handling multiple data streams in a disc drive comprising a step a) of: allocating a buffer size required by each data stream currently being handled" and reallocating when a data stream is either terminated or added. The examiner refers to col. 9, lines 39-47 and column 11, line 9-16 in support of the allocating step. Col. 9, lines 39-47 states that during "recording processes continuous data stream 212 is divided or partitioned into a multiplicity of incoming data segments that are temporarily stored in buffer memory 206." These are NOT currently handled data streams. There is no suggestion or teaching of allocating a buffer size **required by each data stream** as applicant claims. The examiner also cites col. 11, lines 9-16. This passage states:

Disk drive 200 may allocate separate physical or logical sectors on the disk media for asynchronous digital data or may intermingle such data with streaming data. In addition, disk drive 200 may utilize the pointers for the asynchronous data as part of its interpretation of request from the host base on a file allocation table. Alternatively disk drive 200 can be configured to operate in a conventional manner based upon storing data in accordance with the file allocation table.

This passage also does not teach or suggest allocating a buffer size **required by each data stream** as claimed in Applicant's claim 1.

The examiner then cites column 7, lines 3-4 and column 16, lines 27-67 as teaching Applicant's step b) of utilizing the buffer sizes found in allocating step a) for corresponding data streams. Column 7, lines 3-4 of Hamlin states "Each of the data segments 106 is stored in a respective one of the addressable locations 112." Note that location 112 is the storage location on the rotating data storage disk. It is not a buffer or a portion of a buffer. Column 16, lines 27-67 teaches that an available buffer size is set in the drive design and is optimized based on performance and cost. There is no teaching of real time allocation of portions of the buffer to each specific data stream that is currently handled as Applicant has claimed.

Column 17, lines 1-16 does teach allocation of a portion of a buffer to space within memory depending on the size of the data segment or sequence being transferred. However,

there is no suggestion of currently handling multiple data stream throughputs in the buffer by dynamic allocation of buffer space as applicants have claimed. For the above reasons, it is respectfully submitted that a Hamlin does not anticipate Applicant's independent claims 1, 9 and 17. Hamlin is simply focused on an entirely different problem-- that of storing and retrieving data from a disc rather than, in Applicant's claimed invention-- allocating buffer space to multiple streams to optimize/match transfer rates to and from the host. The rejection under 35 USC 102(e) should accordingly be withdrawn.

Conclusion

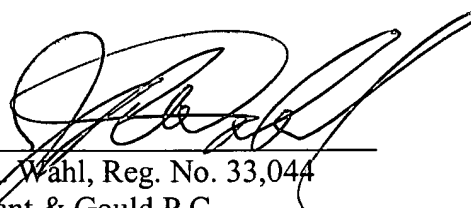
Claims 1-24 remain pending in the application. This amendment is believed to be responsive to all points raised in the Office Action. All claims are believed to be allowable.

In view of the above amendments and remarks, Applicant respectfully requests a Notice of Allowance. If the Examiner believes a telephone conference would advance the prosecution of this Application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

Respectfully submitted,

10/1/03
Date

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